



## DEPARTMENT OF HOMELAND SECURITY

Coast Guard

[Docket No. USCG-2015-1120]

Cooperative Research and Development Agreement: Broadband Cellular and Satellite Communications Exploratory Development

AGENCY: Coast Guard, DHS.

ACTION: Notice of intent; request for comments.

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SUMMARY: The Coast Guard announces its intent to enter into a Cooperative Research and Development Agreement (CRADA) with General Dynamics Mission Systems, Inc., to investigate the operational use of broadband cellular technology, including equipment that may be integrated into the National Public Safety Broadband Communication Band 14 LTE Network (commonly called FirstNet). The research also includes tactical employment of Multiple User Objective System (MUOS) Satellite Communications and common operational picture applications to establish Coast Guard network centric operations. A Pilot Demonstration schedule has been proposed in which General Dynamics will provide and install their Band 14 LTE Network, GeoSuite Server Common Operational Picture application, Satcom radios, smart phones, vehicle routers, modems, and antennas suitable for installation on select Coast Guard surface vessels, boarding teams, command center and ground vehicles. LTE Network base station radios will be placed on an existing CG-owned tower or a deployable equivalent. The Coast Guard Research and Development Center (R&D Center) will prepare a Pilot Demonstration Assessment Plan and a Coast Guard Sector will operate the equipment for

exploratory development over a six-month period to collect information on suitability, reliability, maintenance requirements, and human systems interoperability. While the Coast Guard is currently considering partnering with General Dynamics Mission Systems, Inc., the agency is soliciting public comment on the possible nature of and participation of other parties in the proposed CRADA. In addition, the Coast Guard also invites other potential non-Federal participants to propose similar CRADAs.

DATES: Comments must be submitted to the online docket via <http://www.regulations.gov>, or reach the Docket Management Facility, on or before [ INSERT DATE 30 DAYS FROM DATE OF PUBLICATION IN THE FEDERAL REGISTER].

Synopses of proposals regarding future CRADAs must reach the Coast Guard (see FOR FURTHER INFORMATION CONTACT) on or before [INSERT DATE 30 DAYS FROM DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: Submit comments online at <http://www.regulations.gov> in accordance with website instructions.

FOR FURTHER INFORMATION CONTACT: If you have questions on this notice or wish to submit proposals for future CRADAs, contact Wayne Buchanan, Project Official, C4ISR Branch, U.S. Coast Guard Research and Development Center, 1 Chelsea Street, New London, CT 06320, telephone 860-271-2759, e-mail [Wayne.R.Buchanan@uscg.mil](mailto:Wayne.R.Buchanan@uscg.mil).

SUPPLEMENTARY INFORMATION:

### **Public Participation and Request for Comments**

We request public comments on this notice. Although we do not plan to respond to comments in the *Federal Register*, we will respond directly to commenters and may modify our proposal in light of comments.

Comments should be marked with docket number USCG-2015-1120 and should provide

a reason for each suggestion or recommendation. You should provide personal contact information so that we can contact you if we have questions regarding your comments; but please note that all comments will be posted to the online docket without change and that any personal information you include can be searchable online (see the Federal Register Privacy Act notice regarding our public dockets, 73 FR 3316, Jan. 17, 2008). We also accept anonymous comments.

We encourage you to submit comments through the Federal eRulemaking Portal at <http://www.regulations.gov>. If your material cannot be submitted using <http://www.regulations.gov>, contact the Coast Guard (see FOR FURTHER INFORMATION CONTACT). Documents mentioned in this notice, and all public comments, are in our online docket at <http://www.regulations.gov> and can be viewed by following that website's instructions. Additionally, if you go to the online docket and sign up for email alerts, you will be notified when comments are posted or a final rule is published.

Do not submit detailed proposals for future CRADAs to the Docket Management Facility. Instead, submit them directly to the Coast Guard (see FOR FURTHER INFORMATION CONTACT).

### Discussion

CRADAs are authorized under 15 U.S.C. 3710(a).<sup>1</sup> A CRADA promotes the transfer of technology to the private sector for commercial use, as well as specified research or development efforts that are consistent with the mission of the Federal parties to the CRADA. The Federal party or parties agree with one or more non-Federal parties to share research resources, but the Federal party does not contribute funding.

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<sup>1</sup> The statute confers this authority on the head of each Federal agency. The Secretary of DHS's authority is delegated to the Coast Guard and other DHS organizational elements by DHS Delegation No. 0160.1, para. II.B.34.

CRADAs are not procurement contracts. Care is taken to ensure that CRADAs are not used to circumvent the contracting process. CRADAs have a specific purpose and should not be confused with procurement contracts, grants, and other type of agreements.

Under the proposed CRADA, the R&D Center will collaborate with one non-Federal participant. Together, the R&D Center and the non-Federal participant will collect information/data for performance, reliability, maintenance requirements, human systems integration and other data on LTE broadband and MUOS communications technologies. After an initial installation and training, the Coast Guard plans to evaluate designated platforms outfitted with the communications technologies for a period of six months.

We anticipate that the Coast Guard's contributions under the proposed CRADA will include the following:

- (1) Develop the Demonstration Pilot Assessment Plan to meet the objectives of the CRADA with a diverse set of real-life mission scenarios.
- (2) Provide the pilot demonstration range and range support in and around a Coast Guard Sector .
- (3) Evaluate utility of a Coast Guard tower for installation of the LTE base station radios or identify an alternative site to deploy a mobile tower.
- (4) Coordinate Pilot demonstration network connectivity to desired CG networks and systems and seek all spectra approvals..
- (5) Collaborate with non-Federal partner to prepare demonstration documentation including equipment assessments, final report(s), and briefings.

We anticipate that the non-Federal participant's contributions under the proposed CRADA will include the following:

- (1) Assist the R&D Center in the development and drafting of all CRADA documents, including the pilot demonstration assessment plan, equipment assessments, final report(s), and briefings.
- (2) Provide and maintain the LTE Band 14 Network and MUOS communications equipment including radios, handsets, vehicle routers, and modems, to ensure the network is accessible.
- (3) Secure, with R&D Center assistance, Special Temporary Authority (STA) to implement the Pilot using Band 14 spectrum.
- (4) Provide technical support, training and maintenance throughout the period of performance to ensure maximum availability and utility of the networks.

The Coast Guard reserves the right to select for CRADA participants all, some, or no proposals submitted for this CRADA. The Coast Guard will provide no funding for reimbursement of proposal development costs. Proposals and any other material submitted in response to this notice will not be returned. Proposals submitted are expected to be unclassified and have no more than five single-sided pages (excluding cover page, DD 1494, JF-12, etc.).

The Coast Guard will select proposals at its sole discretion on the basis of:

- (1) How well they communicate an understanding of, and ability to meet, the proposed CRADA's goal; and
- (2) How well they address the following criteria:
  - (a) Technical capability to support the non-Federal party contributions described; and
  - (b) Resources available for supporting the non-Federal party contributions described.

Currently, the Coast Guard is considering General Dynamics Mission Systems, Inc. for participation in this CRADA. This consideration is based on the fact that General Dynamics has demonstrated its technical ability as the developer, manufacturer, and integrator of LTE Band 14

Network equipment and MUOS Satcom technologies. However, we do not wish to exclude other viable participants from this or future similar CRADAs.

This is a technology assessment effort. The goal for the Coast Guard of this CRADA is to better understand the advantages, disadvantages, required technology enhancements, performance, costs, and other issues associated with Band 14 LTE broadband wireless communications and MUOS satellite communications. Special consideration will be given to small business firms/consortia, and preference will be given to business units located in the U.S. This notice is issued under the authority of 5 U.S.C. 552(a).

Dated: December 24, 2015

Captain Dennis C. Evans, USCG  
Commanding Officer  
U.S. Coast Guard Research and Development Center

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